

PATENT SPECIFICATION

DRAWINGS ATTACHED

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1012565

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In. Cl. - 2 6 1

COMPLETE SPECIFICATION

Improvements in or relating to Liquid Flow Control Valves

WE, J. COWARD & SONS, Limited, a British Company, of 15/16, Victoria Street, London, do hereby declare that the invention which we pray that a Patent may be granted to us, and the method by which it is to be performed, is in the following manner:

This invention is for improvements in or relating to liquid flow control valves and has for one of its objects to provide a simple and inexpensive valve arrangement which is effective in operation. A further object is to provide a simple form of valve suitable for use in a domestic appliance.

In accordance with the invention there is provided a liquid flow control valve comprising a flexible pipe and connecting for portions of the pipe, each mounting being hinged to one another about a pivot axis extending transversely of the length of the pipe. The pivot mounting is so arranged that they can be caused to hinge towards one another to bend the flexible pipe so as to form a kink or fold thereby restricting or interrupting the flow passage in the pipe. By varying the degree of relative angular displacement between the two mountings the flow passage can be caused to be restricted to a greater or less extent so that regulation between full opening and complete closure is possible.

In a preferred form of construction the valve comprises two rigid plates or strips hinged to one another and respectively supporting anchorage for portions of the flexible pipe. Such anchorages may be formed as rings forming eyes through which the pipe passes or loops to embrace the pipe. The latter two pieces then one plate or strip through to anchorage, passed the hinge transversely of the axis thereof and along the other plate or strip and through the anchorage thereon. The plates or strips are arranged

to be capable of hinging so that the angle subtended between them on the side of the pipe can be varied from 180° to an acute angle of about 60°. In the latter setting the pipe will be fully closed to shut off the passage through it.

In a convenient construction the hinged mountings for the pipe are spring operated so as to close the closed setting and are arranged to be opened by a cam or lever to move them away from the closed setting against the action of the spring. The operation of the valve may be controlled manually by a hand lever or other manual control or it may be controlled automatically by a power operated cam or lever.

The invention is particularly applicable to a liquid control valve for a washing machine to control the supply of additive to the washing liquid. The invention accordingly includes a washing machine incorporating a valve as above described for the control of such additive. A particular application of the improved valve is to a dish washing machine and it may be employed for controlling the supply of detergent in the washing liquid or else additive to the rinsing liquid. In this case the valve is conveniently arranged to be capable of being opened to the required degree of opening to suit particular conditions so that just the required amount of additive will be supplied at each cycle operation. Such a machine may be equipped with two valves according to the invention respectively controlling the control of the supply of detergent and also additive.

In applying the improved valve to a dish washing machine the pump which supplies liquid to the washing chamber conveniently has a one junction at its inlet, one arm of the one junction being connected to a water supply and the other arm of the junction

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1012565 COMPLETE SPECIFICATION
 2 SHEETS This drawing is a reproduction of
 the Original as a reduced scale
 Sheets 1 & 2

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